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Attributional training vs contact in acculturative learning

A Laboratory Study.

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Attributional training vs contact in acculturative learning:

A Laboratory Study

Abstract

A culture assimilator, a programmed learning technique for teaching about another culture, was combined with behavioral contact to test for the joint effectiveness of the two approaches to acculturative training. 45 White male college students were randomly assigned to five training conditions in a modified Solomon four-group design. Results indicated significant differences between trained and untrained Ss on knowledge of Black culture and better behavioral performance (as rated by Black confederates who were blind as to the training conditions) for Ss receiving assimilator training followed by contact than the reverse condition. Apparently, the assimilator provides an opportunity to consolodate new attributions prior to their use in a real interaction. The reverse pattern (interaction before the formation of new attributions) is seen as anxiety producing and a test for the role of anxiety in intercultural training was generally positive. Possible implications of the results for cross-cultural training theory and methodology are discussed.

Attributional training vs contact in acculturative learning:

A Laboratory Study

In the recent past there has been a upsurge of studies
dealing with methods for improving cross racial and cultural
interpersonal interactions (Stenning,1979). One reason for this
interest is the increase in economic and political
interdependence across ethnic and national boundries and the
concomitant higher risk of misunderstandings. However, reducing
the probability that misunderstandings will occur is not easy
(Gerard, 1983). Triandis (1976a) has suggested that one source of
the problem is that people of different cultures may not view
social events or situations in the same manner. Subjective
culture is the term used to describe the usual manner in which
members of a given cultural group perceive their social
environment (Triandis, 1972). Thus, two individuals from
different cultures can view the same interpersonal situation or
event and make diverse attributions. This perceptual difference
may lead to tension and/or conflict, even though the individuals
may be well intentioned. Triandis (1976a) has further speculated
that when one person comes to fully appreciate the subjective
culture of another, he is able to make similar behavioral

attributions as the other (ie. make isomorphic attributions). Over the years, many training approaches have been developed to reduce misunderstandings and increase cross-cultural effectiveness.

The major approaches to cross-cultural training have been recently reviewed by Brislin, Landis, and Brandt (1983) and Gudykunst and Hammer (1983). These techniques include the following approaches: the intellectual (also known as the university model which focuses usually on cognitive change); the area simulation in which critical aspects of a culture are simulated with trainees asked to respond as if they were in the real setting; self-awareness in which the focus is on the trainees becoming aware of the bases for their own behaviors; culture awareness which focuses on culture general information; the behavioral in which specific behaviors used in the host culture are taught; and the interactionist which involves actual encounters between trainees and hosts during training. While these approaches may appear to be quite different, it can be argued that they provide an increased level of contact (albeit vicarious in some applications) with a target culture. The idea of contact as a way of changing attitudes was discussed extensively by Allport (1954) in the context of of improving cross-racial interaction. Even though the hypothesis has undergone considerable modification (e.g. Amir, 1969, 1976; Riorden, 1977), the basic idea that contact underlies the

development of attitudes and behaviors toward other cultures seems to be viable. The development of positive attitudes and behaviors requires that conditions such as equal status of the individuals, agreement on superordinate goals, and so on, be present (Brislin, 1981).

Gudykunst, Hammer and Mitchell (1977) suggest that no one training technique is effective in changing cultural attitudes and behavior but that it is necessary to integrate several approaches. These authors then go on to describe and provide a preliminary evaluation of such an "integrated" program, a combination of the intellectual, behavioral, cultural self-awareness and interactionist approaches. The evaluation, which was holistic in nature, did show significant changes on the major dependent variables. However, the design did not permit a disentangeling of the various program components, a necessary aspect if recommendations with regard to training efficiency are to be made. Clearly, an appropriate evaluation would have required some form of a Solomon four-group design (Solomon & Lessac, 1968). The present study is in the same spirit of inquiry as the Gudykunst, et al (1977) study but attempts to provide a rigorious and theoretically based evaluation of two approaches to cross-cultural training. In the present paper, the training focuses on changing the attitudes and behaviors of American Whites toward American Blacks and is in a tradition of action research going back at least to Lewin (1946) and including Sherif

(1966), Triandis, (1976b), Weldon, Carlston, Rissman, Slobodin & Triandis (1975), Landis, Day, McGrew, Thomas & Miller (1976), Randolf, Landis & Tzeng (1977), and Katz (1977). This focus was chosen for three primary reasons: 1) The most critical cross-cultural interaction problem for this society remains the relationship between Black and White. Despite seemingly positive change in this relationship (based on survey data), there is considerable evidence that discriminatory behaviors are still strong (Crosbey, Bromley & Saxe, 1980); 2) There exists a training technique--the culture assimilator--which was explicitly designed around Triandis' notion of isomorphic attributions and 3) The version of the technique for training Whites to interact with Blacks has been subjected to both laboratory and field validation (e.g. Weldon, et. al., 1975; Landis, et. al., 1976; Albert, 1983). The second approach--behavioral contact--was chosen primarily because it represents the contact hypothesis in its purest form, a brief non-threatening, equal status exposure. The experiential nature of such a behavioral interaction would provide the opportunity to compare a purely cognitive ("intellectual" in Gudykunst, et. al's terms) with a non-cognitive approach.

The culture assimilator, a programmed instructional technique1, has been used in several studies over the past 15 years (e.g. Chemers, Lekhyananda, Fielder & Stolurow,1966; Foa, Michell, Santhai, Wichiarajote & Wichiarajote,Note 1; Symonds,

O'Brien,,Vmdmar & Hornik,Note 2; Mitchell, Gagerman & Schwartz,Note 3; Fiedler, Mitchell & Triandis,1971; Mitchell & Foa, 1969; Foa & Chemers, 1967; Weldon, Carlston, Rissman, Slobodin & Triandis,1975; Landis, Day, McGrew, Thomas & Miller,1976; Malpass & Salancik,1977; Randolf, Landis & Tzeng,1977; Day, Landis & McGrew, Note 4; Landis, Brislin, Tzeng & Thomas, Note 5; Albert, 1983). These studies have demonstrated that the culture assimilator has significant and positive cognitive, attitudinal and behavioral change properties. Unfortunately, the mechanism by which these effects are produced has not been empirically determined. Research on this point is all the more important since some studies (e.g. Weldon, et. al, 1975; Randolf, et. al, 1977) have reported an increase in anxiety after training as an outcome which might be undesirable.

In reviewing the Weldon, et. al.,1975 paper, Landis (cited in Weldon,et. al.) alluded to the role of anxiety in intercultural training. At that point anxiety was seen as a natural byproduct of a trainee's attempt to form isomorphic attributions about another culture and finding, in the process, that current attributions are incorrect. Realizing that their attributions are incorrect, the trainees might be quite anxious about interacting with a person from the other culture. Anxiety would decrease as the new attributions are consolodated and become integrated within the cognitive structure. Prior to this point of consolodation, it was felt that functioning in an

intercultural setting would actually be impaired as compared with no training. Partial, but not complete, support for this notion, and the idea that the anxiety could be reduced by interpolating a practice interaction between the trainee and a member of the target group in the interval from the end of training to the beginning of assessment, was found by Randolf, Landis & Tzeng (1977). In that study, the practice interaction did not deal with "cultural issues" and always occurred after assimilator training. We may view the "practice" as an example of a behavioral change technique in which responses are emitted and then reinforced or constructively corrected by the other person. However, in this situation <u>all</u> responses were accepted, possibly reducing the contrast between new (appropriate) and prior (possibly inappropriate) behavior patterns. This lack of clear differentiation may be behind Randolf, et. al's failure to find unequivocal evidence for the positive effects of practice. An alternative view is also plausible: that practice with a member of the target culture, no matter how accepting, is often anxiety producing; that is, the mere presence of another is bothersome when the new responses have not been consolodated. If this idea is valid, then it would be desirable to provide an opportunity to rehearse the new information without the potential negative effects of target group censure

<u>Behavioral interaction</u> is a fairly common behavioral training technique in cross-cultural training (Weeks, Pedersen & Brislin,

1977) in which the trainee is given the opportunity to interact with a member of another culture . In a race-relations context several studies (e.g. Culberston, 1957; Breckheimer & Nelson, 1976; Amir, 1976; Hope,1979; Day, 1983) have shown that interacting with a member of another culture has, under certain conditions, facillitative effects on changing racial attitudes and behaviors. At the same time, Sell (1983) has reviewed research on attitude change as a function of "foreign study experiences" in American college students. Her conclusion was that there is little evidence of any attitude change perhaps because the foreign student experience containes both negative and positive contacts. This analysis would suggest that increasing accurate attributions while eliminating (or at least decreasing) negative contacts would remove potential interfering effects of anxiety. Since contacts without consolodated attributions are likely to be anxiety producing, it would seem reasonable that providing assimilator training followed by contact would be more effective that the reverse situation. However, the theoretical basis for this prediction should be elaborated before the analysis becomes compelling. This analysis requires, at the least, a provisional model of intercultural learning.

We suggest the following mechanism for understanding the ways in which persons learn about another culture. Coming into contact (either naturally or through some training technique)

with members of another culture calls into question the
trainee's prior attributions about members of the target group.
That is, the attributional categories into which experiences with
target persons (even vicarious experience) are sorted are shown
to be less probable. When this happens (ie. there are now
alternative categories with equal probability of being correct),
the perceived ability to predict behavior becomes less. This
drop in perceived predictability results in an increase in
anxiety (most likely of the "state" variety: Spielberger and
Diaz-Guerrero, 1976). This anxiety is only reduced when some
(new) categories come to have a greater probability of being the
(true) explanation for the other's behavior. Now, this reduction
in anxiety (and the consequent setting of new cognitive
categories) can come about in at least two ways: a) the trainees
can try out the new attributions with a member of the target
group and be (hopefully) positively reinforced and b) the trainee
can vicarious reclassify his/her prior experience into new
categories and find that they fit better the remembered events.
The advantage of the later method is, of course, that there is no
possibility of getting mixed reinforcements for incorrect
responses. The disadvantage of the former is that, if the
experience with a target group member comes too soon, the correct
and incorrect categories will be equiprobable leading to
vacillatory behavior, which is likely to be negatively perceived
and so negatively reinforced by the other.

Testing of the above idea can be done by subjecting separate groups to experimental manipulations (training) which foster one of the two ways to change attributions. For the first, a behavioral interaction which is non-threatening and positively reinforcing would seem to be suitable. For the second, provision of a set of vicarious experiences (through the assimilator), followed by a period of time, would provide the needed time for restructuring of cognitions. Mixing in counterbalanced order the two approaches would allow the reciprocal (inhibitory or facilitative) effects to be assessed.

A problem with many of the previous studies is their choice of the setting in which to measure the dependent behavioral variable. For example, in the Weldon, et. al. (1975) study, the key variable was judged "likeability" by a Black confederate. The measurement was taken after the trainee and confederate were in a contrived interpersonal interaction. This approach of obtaining evaluative data from a member of the target group subsequent to an interaction is not a particularly bad technique; it is certainly preferable to asking S if his behavior has changed as a result of training! However, it is difficult, if not impossible, to control for the effect of the confederate (or rater) on the behavior of the trainee. That is, it may be that the mere presence of the member of a target is sufficient to arouse some anxiety in the trainee which would interfere with the emitting of new attributions. A possible way out of this

methodological problem is to recall, and then apply, Triandis' notion of isomorphic_attributions. If this means anything at all in a behavioral sense, then a person who is able to make the correct attributions should be able to argue in such a way as to be recognizably similar to the target group. We can, therefore, ask the trainee to take on the role of a person from the target group while providing for a non-obtrusive observation by a naive member of the target group. If the subject is now making isomorphic attributions which are translated into behaviors, this fact should be detectable by the observer.

Based on the above arguements, we can make the following predictions when we combine intellectual (e.g. culture assimilator) and behavioral contact approaches to training: First, culture assimilator training should by itself result in $\underline{S}$s making more isomorphic attributions on a paper and pencil test of those cognitions. This hypothesis is little more than a replication of prior studies (e.g. Randolf, et. al, 1977). Second, when assimilator training is followed by a behavioral interaction, the level of isomorphic attributions by trainees should be greater than in the reverse case. This prediction follows from the idea that the function of a behavioral interaction after intellectual training is to increase the probability of experience being categorized using the new attributions. On the other hand, behavioral interaction prior to cognitive training could not reinforce new attributions since

such new cognitions have not yet been well formulated. Therefore, behavioral interaction by itself should have very little effect on judged ability to make isomorphic attributions.

We would also expect that the same reasoning used to predict the effect of training conditions on isomorphic attributions should also apply to the trainee's overt interpersonal behavior. That is, attributional (ie. assimilator) training followed by behavioral interaction should produce a more favorable impact on a member of the target group than the other conditions.

We can also suggest some hypotheses about the role of anxiety in acculturative training. Anxiety is generated whenever the probabilities of two attributions being correct approach one another and, of course, becomes maximum when they are equal. In addition, we can hypothesize that a face-to-face encounter with a person of another culture is also anxiety eliciting, ie. the cues to correct categorization are not present. Thus, a contact situation will result in high levels of anxiety and slower learning due to the disruptive effects of high drive. On the other hand, assimilator training given by itself would eliminate the direct interpersonal type of anxiety, while allowing the generation of new categories. Released from the pressure to respond (and to be interpersonally reinforced), the anxiety felt by $\underline{S}$ would be comparatively mild and may even act as a motivator to make the correct (vicarious) attributions. Then, if an

encounter is introduced, the disparity between the "correct" and "incorrect" categories will be clear. The prediction is, then, that the presentation of contact followed by assimilator training will result in higher levels of anxiety than the reverse and be negatively correlated with positive cognitive and behavioral change.

Method and Procedure

Subjects. Ss consisted of 45 White male undergraduate college students attending summer classes at a large urban university who were offered class credit and/or money for their participation. The demographics of the Ss are: a) Mean age=25.78 years; b) 82.2% of the Ss came from middle to upper middle class backgrounds; c) Ss were not naive concerning other ethnic groups with 80% reporting having very frequent contact with one or more groups.

Materials. In addition to the culture assimilator and behavioral interaction training materials and procedures, scales to test knowledge/sensitivity of Black culture and the S's subjective level of anxiety were used. A video taped role reversal, role playing task was used for the final behavioral criterion task.

Culture Assimilator. The Randolf, et. al (1977)

assimilator, consisting of 40 items from the Slobodin, et. al. (Note 3) instrument was used. According to Randolf, et. al, items were chosen for their 1) information value, 2) commonness of occurance and 3) possibility for misinterpretation by Whites. A linear format was employed to compensate , in part, for the reduction in assimilator length and for it's greater information transfer value (Malpass & Salancik, 1977).

Behavioral interaction. Behavioral contact was used in the present study as a training procedure. The interactions consisted of S and a Black confederate assuming roles and interacting in three scenes defined by the experimenter. The three scenes used were: 1) a discussion of Black pride, 2) a discussion of respect and 3) a discussion on mixing groups of friends of different races. S was instructed to "...be yourself, but to assume the role of a friend and co-worker of the other". The interaction was followed by a summary and discussion by the S, the confederate and the experimenter on what transpired in the scenes. A 15 minute time limit was set for the role playing, with an additional 15 minutes for the discussion. The confederate was not aware of S's training group.

Test of Intercultural Sensitivity. Ten of the total 25 TICS items (Weldon, et. al., 1975) were selected to assess Ss ability to make isomorphic attributions. The TICS items come from the same pool of incidents that form the basis of the assimilator and are identical in format, with the exception that no feedback is provided as to correctness of the response.

Anxiety scale. The Spielberger, Gorsuch & Lushene (1968) state self-evaluation anxiety scale was used. This was the same measure used in the Randolf, et. al (1977) study.

Task evaluations. Self-evaluation of $\underline{S}$'s opinions about the difficulty of the task, their own performance and that the performance of the co-worker (confederate) were gathered after the behavioral interaction.

Behavioral task. The behavioral task consisted of $\underline{S}$ and a White confederate interacting in a role reversal situation. $\underline{S}$ was instructed to "...put yourself in another's shoes; to act as you think or know a Black would act. The White confederate played a "White" role. There were three scenes: 1) A discussion of Black tastes and styles in clothing; 2) A discussion about Black activists; and 3) methods of responding to discriminatory treatment in a restaurant. The confederate initiated the first two scenes and directed $\underline{S}$ in initiating the third. The confederate followed a pre-arranged script for his responses. All scenes were video taped.

Procedures. The 45 White $\underline{S}$'s were randomly assigned to one of five groups: 1) assimilator only; 2) assimilator followed by behavioral interaction; 3) behavioral interaction followed by assimilator training; 4) behavioral interaction only and 5) a no treatment control. $\underline{S}$s were seen individually and on the first day of the study answered a general biographical questionaire. $\underline{S}$s were then trained (according to their group assignment) with the

control group spending an amount of time equal to the behavioral interaction interval (about 30 min.) with the confederate and experimenter discussing non-racial matters (e.g. school related). Immediately after training, $\underline{S}$s completed TICS, the task evaluation, and the anxiety scale. Seven days later, $\underline{S}$s were called by the experimenter (ostensibly to participate in a new study) to engage in the behavioral task. The video tapes of the reverse role playing were blind scored by two Black confederates. The panel had been trained to achieve a minimum inter-rater reliability of 85%. The scoring was along two major dimensions: Primary evaluations were made as to the accuracy of $\underline{S}$'s non-verbal, verbal, and overall portrayal of Black behavior. Secondary evaluations were made as to how well $\underline{S}$ seemed to "...put themselves in another's shoes", how "personally likeable" they were and as to how well they handled the situation.

Upon completion of the role reversal task, $\underline{S}$ again completed the anxiety scale and the task evaluation measure and received initial debriefing (complete debriefing occurred one week later).

Analyses of data. One-way analysis of variance was applied to the data with the 5 groups (treatment and control) as the independent variable. Each dependent variable (e.g. scores on TICS) was analyzed to test each of the hypotheses. Significant effects were further probed by the New Duncan Multiple Range Test. In addition, to further probe the effect of anxiety, pre-post difference scores were computed. These difference scores were

also subjected to an analysis of variance. Finally, a correlational analysis was applied to the anxiety difference scores, on the one hand, and the attributional data (ie. TICS) and the behavioral ratings, on the other hand.

Results

With regard to the behavioral ratings, the assimilator-then-behavioral interaction group was rated significantly ($p < .05$) better by a target culture member than the other groups as predicted. The overall analyses for both the primary and secondary behavioral evaluations were highly significant ($F_{(4,40)} = 8.74$, $p < .00001$ and $F_{(4,40)} = 6.56$, $p < .0004$, respectively). Within the groups, the assimilator only Ss were not significantly different from the control Ss for both measures. The two remaining behavioral interaction groups (behavioral interaction only and behavioral interaction prior to assimilator) received mean ratings intermediate (but significantly different from) the control S, at one extreme and the assimilator prior to behavioral interaction Ss at the other.

All four training groups made significantly greater isomorphic attributions (on TICS) than the control ($F_{(4,40)} = 4.70$,

p(.003). However, the training groups did not differ among themselves.

Analysis of the anxiety measure revealed several significant effects. While the post-test anxiety measure by itself was not effected by type of training, change in anxiety was. Overall, all subjects were more anxious at post test than they were 7 days previous (Mean Diff = 4.91. t=3.86, df=43, p(.0001). The control and assimilator only groups were the major contributors to the significant change in anxiety (Mean Differance Pre to Post Test=6.38, 9.22 respectively). By the Duncan Test, the control and assimilator only groups became significantly more anxious than the other groups (p (.05). Within the groups receiving contact in some form, the order was as predicted even though the groups were not significantly different from other other; that is, the smallest anxiety change occurred when the assimilator preceded contact (Difference=2.3); next was contact by itself (Difference =3.4) and the most anxiety change occurred with contact preceding assimilator training (Difference=3.7). The correlational analysis of anxiety change across groups indicated some interesting relationships to the other dependent variables. Change in anxiety was significantly (r =-.31, df=45, p(.02) related to TICS, and both the primary (r=-.30, df =45, p(.02) and secondary (r=-.39, df=45, p(.005) behavioral measures. In other words S's high in cognitive knowledge tended to have relatively less change in their levels of reported anxiety over the seven

days; the converse was, of course, also true. Additionally, $\underline{S}$'s who performed well on the behavioral tasks tended to have less of an increase in anxiety. Also, the TICS was not significantly related to the behavioral measures.

The type of training had a significant impact on the way a trainee perceived the other person in the contact situation. When $\underline{S}$s rated their co-workers a significant effect was found ($\underline{F}(4,40)=7.95$, $\underline{p}(.0001)$. The assimilator only and control groups rated their co-workers significantly ($\underline{p}(.05)$ more competent than did the other groups.

Discussion

The major findings of the present study are: a) A sequencing of attribution training followed by a behavioral interaction results in high judged ability to assume the role of a member of another cultural group; this ability is accompanied by little change in anxiety; b) Attributional training by itself results in the highest levels of anxiety over time and the least ability to assume a role in another culture; and c) Attributional and contact training produced significant improvements in making isomorphic attributions. We shall expand on these findings.

Attribution learning

The significant improvement in making isomorphic attributions replicates the findings of Randolf, et. al that even a brief (ie. 40 incidents) assimilator has desired effects on learning accurately about another culture. However, the findings with regard to the other experimental groups suggest that even a short (e.g. 30 minutes) period of behavioral training can also have positive effects. The results for order of training within experimental groups did suggest, nevertheless, that the most potent effects on changing attributions would be had by a combination of the techniques, with the best being using the assimilator first. While not statistically significant, the order is in the predicted direction. These results taken together with the highly significant ones from the behavioral criterion task lend considerable support to our hypothesis that attributional training followed by contact would be more effective than other combinations.

Anxiety effects

We also explored the role of anxiety in this learning process; the significant effects would suggest that this is an important variable in cross-cultural training. The results, while not totally in accord with our predictions extend the findings of Randolf, et. al (1977). Our data does suggest that any contact is anxiety reducing (perhaps because of the similarity in

stimulus situations between the other person in the contact situation and the person in the later behavioral task). Further, while not as strong as we would have liked, attributional training prior to contact seems to dampen increases in anxiety over the reverse pattern of training. Perhaps a longer assimilator would have produced more obvious effects. Since this difference while in the predicted direction was not statistically significant, some further explanation is in order.

The correlational analysis suggests one explanation. The negative relationship between anxiety change and TICS would lead us to infer that people who do better on TICS (given that the cognitive measure was administered 7 days before the post-test anxiety measure) are less suseptible to anxiety; that is, such persons change little as a function of training. Since such persons were probably randomly distributed across the groups, we have a subsample of the sophisticated or knowledgable for whom learning about Blacks holds little anxiety potential. The relative smallness of our sample, however, does not permit dropping these subjects. Future studies will have to separately examine such individuals in order to assess the effects of anxiety in intercultural learning.

It is also possible that high levels of anxiety might have been aroused but the measure was relatively insensitive. The Spielberger, et. al (1968) scale asks questions about how a

person feels at the time of measurement: "I feel nervous" and "I am tense". Interpersonal anxiety (ie. that derived from being in an interaction with another who is disimilar) may be more appropriately measured by specifying the item to the interaction setting (e.g. "I feel nervous interacting with this person"). Another, but not contradictory possibility, is that there may have been a good deal of chronic anxiety coming from simply being in a psychological study. Such anxiety, if present, would be expected to swamp the more transitory effects due to training. However, this last idea is improbable since many of these Ss could have been expected to have participated in other experiments and thus would not have been unduely anxious. A further hypothesis would look at the sex differences between the Randolf (the Ss were female) and the present research (all male Ss). In the Randolf study, the S interacted with a male experimenter and confederate. That sex difference, in itself, might have heightened whatever anxiety would be present from the training approaches. The cross-sex situation enhancement would not occur in the present study. Certainly, this aspect of cross-cultural training needs further and systemic investigation.

Role assumption

The order of the groups with regard to both the change in anxiety and the success in assuming a role would seem to be counter to those obtained by Weldon, et. al (1975). In that study, it will be recalled, the best performance by trained

subjects working with a Black confederate, occurred when the behavioral task was delayed for some time. Subjects who went immediately from the training to the behavioral task did less well. The former condition would seem to be comparable to the "assimilator-only" training group in the present study, which did less well. We can suggest two possible explanations for the difference between the two studies. In the first place, although the Weldon $\underline{Ss}$ had their interaction with a Black delayed, the reason was to allow time for a series of questionaires dealing with aspects of racial interactions to be administered. The "immediate" interaction group had the questionaires administered at a later time. We might suppose that anxiety was indeed generated by the assimilator experience, but that the questionaire administered resulted in the subject mentally going over the new attributions and imagining how that might fit into new behaviors. In a model of intercultural behavior, Landis and his colleagues (e.g. Brislin, Landis, and Brandt, 1983; Landis, Hope and Day, in press) have labeled the process "behavioral rehearsal". Such rehearsal might be expected to provide an analogue to "contact" in our situation. The second explanation calls attention to the difference in length between the assimilators used by Weldon and the one used in the present study. The Slobodin, et. al. assimilator consists of some 100 items; the version used here was 40 items. It may be that a short assimilator is sufficient to call past attributions into question but without generating much of a motivation to find new

behaviors in accord with the new cognitions. The old saw about "a little knowledge being a bad thing" may be quite applicable in this situation.

If future studies continue to find that anxiety is significantly implicated as a predictor of intercultural interaction, we should perhaps entertain the idea of a two stage process in intercultural learning. In such a process anxiety would play the part of a moderator, enhancing or degrading the formation of new cognitions. In the first stage, we would hypothethize that presentation of any new attributions would generate anxiety, probably due to the reduction in the perceived accuracy of old cognitions about the target culture. Left alone (e.g. without any way of testing through contact the new attributions), the anxiety will increase over time as it did with the assimilator-only group. And, the greater the anxiety the greater the probability that contact, of any kind, will not occur. However, should a contact occur, and be positive or at least neutral in nature, the new cognitions will gradually come to have a greater probability of being true than the old ones. The anticipatory response aspect of anxiety will thus be extinquished; in other words, the person will find out that terrible things will not occur to them as they interact using the new attributions with members of the target culture. At some point the probabilities of the new and old cognitions being true will cross and the solidifications of the new will occur at an

accelerated rate, due to increased desire for contact. The person's ability to assume the role of a person from the other culture would increase, precisely the results from the behavioral ratings (by a target culture member) in the present study. This approach sees anxiety as a very natural, and needed, integral part of the learning about a new culture. However, the basic process is a cognitive one that involves the constructing of new attributions about people from the new culture. An implication of the proposed model is that much of the "folk" wisdom with regard to the necessity to "feel" like the other as a way to learning about another culture may be an overemphasis. Such experiential activities would be best postponed until after some new attributions are presented and the person has come to realize, and even experience some anxiety, that the old cognitions may not be useful. Experiential training too soon may be not only unecessary but degrading to the behaviors desired in that anxiety may be generated which would interfere with new learning of cultural aspects of behavior.

It is also reasonable to suggest that in an intercultural learning situation, behavioral change may stabilize before cognitions (attributions) are clearly differentiated. The significant results from the behavioral measure taken together with the non-significant trend of the attributional change data would tend to support this idea. Thus, we would predict that in time, if the behaviors are positively reinforced (or at least not

negatively rewarded), the differences in the development of
isomorphic attributions (TICS) seen here would become large
enough to achieve significance.

Perceptions_of_target_persons

Even though certain training conditions produced the desired
behavioral and affective changes, there is at least one
intriguing, possibly worrisome effect that should be investigated
further. The data suggest that any type of real interaction
(e.g. behavioral contact either alone or with some other
technique) results in a lower evaluation of the person from the
target culture. Even though this evaluation is not low in an
absolute sense, it is lower for groups which have had a real
cross-cultural interaction as compared with groups that have not
had such an experience. Interestingly enough, this pattern is
associated with lower levels of anxiety as measured some 7 days
later. Put another way, subjects who have had some contact with a
Black individual experience less anxiety but also evaluate that
person lower than individuals without such contact. At the same
time, we should remember that the same White individuals who had
higher levels of anxiety and lower evaluations of the target
persons were able to assume a Black role more readily and
successfully than persons without these charactersitics. So, it
would appear that while the S does not necessarily perceive the
other in a highly positive manner, they are able to make a
positive impression on the other as shown by the latter's

ratings. The long term results of such a difference between affect toward the other and behavior which is judged by others as interpersonally successful are difficult to predict. The finding that people who have had a cross-cultural experience manifest more negative feelings about target culture members than others with no such experience has previously been reported in the literature (e.g. Steinkalt and Taft, 1979). One explanation is that people who have had actual experiences inevitably will perceive some negative qualities, or at least qualities that they personally dislike during the experience. Such perceptions become reflected in the ratings of target group members after the experience. In contrast, people without such experiences may have a romantic or poorly developed view of target group members. Since they have not had experiences there is no reason for them to change their views one way or the other. Brislin (1981) has interpreted findings such as these as a trend toward reality rather than a trend toward active disliking of the target group. Experiences may bring a realistic test to previously romantic or poorly developed attitudes. Studies of intervention programs to improve intergroup relations should include analyses of how experience based attitudes, rooted in real like and dislikes, can be combined with the need to work and live without tension in a pluralistic society. Perhaps the analysis of reality-tested and experience based attitudes will help explain the troublesome but regularly reported finding that positive attitudes in arranged intergroup contact settings do not transfer well to other

settings or to other minority group people (e.g. Weigel, Wiser, & Cook, 1975)

We can go further than the analysis in the previous paragraph and suggest a cognitive process underlying the phenomenon of lower ratings of target group members while making a positive impression on the other culture. We suggest that each negative attribution adds an increment toward a development of patterns of thinking that will be in direct conflict with behaviors. When the conflict becomes strong enough, and if it is reinforced by others (or by isolation from the positive aspects of cross-cultural interaction), the behaviors may change. At this point a reciprocal facilitation situation will be apparent with the change occuring at an accelerated rate. The $\underline{S}$ will then either leave the situation (e.g.withdrawing from intercultural contact) or develop xenophobic reactions. An example of the consequences of negative affect coupled with the need to use behaviors which will be positively viewed by another cultural group can be inferred from Hope's (1979) analysis of "burn-out" among race-relations instructors in the military. Briefly, Hope reported that a significant number of race-relations officers either requested reassignment to other duties or resigned their military commissions. This first case is understandable since at that time race-relations training was not perceived as an avenue to promotion. The later situation is more bothersome since many of these officers were, apparently, persons whose history and

training would fit them for successful military careers. Perhaps what happened is that intereaction with minorities generated an actual increase in negative attributions since some members of the minority group inevitably had their share of the negative qualities to which all humans are heir. The requirements of the job, however, produced positive behaviors in the form of active lobbying for the minority persons. At the same time, a parallel process in interactions with the Chain of Command (negative attributions for challenging the system but with one's career dependent on being seen positively) was occuring. Caught in this situation, a leaving of field is a reasonable action. If this analysis is reasonable and the findings reliable then further investigations should focus on ways of preventing the development of negative evaluations while desired intercultural behaviors are being learned.

Results of this study provide the basis for advice to professionals involved in intercultural relations, such as foreign student advisers, trainers who prepare people for overseas assignments, and educators involved in school desegregation. In preparing people for contact with target group members, any practice behavioral interaction is best preceeded by information about how the target group thinks (makes attributions about) critical issues related to interpersonal interactions. Any anxiety brought on by the new information, which by definition tell people that they have long been making incorrect

attributions seems to dissipate with an opportunity to see how the new attributions can be applied in a practice contact situation. After the practice contact there may be small but worrisome changes in the direction of negative feelings about target group members. These changes, however, might be reflecting a move away from romantic and poorly formed attitudes toward realistic ones based on direct experience. No real life contact can be entirely positive, and so some negative feelings are to be expected. Given that there be a conflict (as discussed above) between these negative feelings and the positive behaviors demanded by the situation (e.g. to be cordial, supportive where possible), cross-cultural training should include a direct treatment of the feelings. Perhaps the feelings are due in part to negative attributions of target group members and their behaviors as seen in the practice interaction. Training which asks people to look behind the negative attribution to potentially positive aspects of the behavior may be helpful. For instance, what seems like the lack of an individualistic achievment drive may reflect a co-operative orientation with peers which developed in response to a history of discrimination. What seems like aloofness might be a reflection of wariness toward well-intentioned outsiders who come in and out of the lives of target group members leaving the target group no better off than before.

Finally, studies of the type reported here are different

from much past research in that they attempt to link up models of interpersonal behavior with approaches to changing cultural attitudes and actions (see Gerard, 1983 for criticism of many previous studies of desegregation). Thus, not only can the results be placed in a theoretical context, but predictions can reasonably be made about future manipulations. In this way, a corpus of knowledge can be built leading to practical and efficaious techniques for reducing racism and other forms of ethnocentrism.

References

Albert, R.D. "The intercultural sensitizer or culture assimilator: A cognitive approach" in D. Landis and R.W. Brislin (Eds). Handbook of intercultural training. Vol.II: Issues in Training Methodology.. New York: Pergamon Press, 1983. Pp.186-217.

Allport, G.W. The nature of prejudice. Boston: Beacon Press, 1954.

Amir,Y. Contact hypothesis in ethnic relations. Psychological bulletin. 1968,71,319-342.

Amir,Y. The role of intergroup contact in change of prejudice and ethnic relations. In P.A. Katz (Ed) Toward the elimination of racism. New York: Pergamon, 1976. Pp. 245-308.

Breckheimer,S.E . & Nelson,R.O. Group methods for reducing racial prejudice and discrimination. Psychological reports, 1976,39,1259-1268.

Brislin, R.W. Cross cultural encounters. New York: Pergamon, 1981.

Brislin, R.W., Landis, D., & Brandt, M.E. "Conceptualizations of intercultural behavior and training" in D. Landis and R.W. Brislin (Eds). Handbook of intercultural training. Vol.I: Issues in Theory and Design. New York: Pergamon Press, 1983. Pp.1-35.

Day, H.R. "Race relations training in the U.S. military" in D. Landis and R.W. Brislin (Eds). Handbook of intercultural training. Vol.II: Issues in training methodology. New York: Pergamon Press, 1983. Pp. 241-289.

Chemers,M.M., Lekhyananda,D.,Fiedler,F.E. & Stolurow,L.M. Some effects of cultural training on leadership in heterocultural task groups. International journal of psychology, 1966,1,301-314.

Crosbey, F., Bromley,S. & Saxe, L. Recent unobstrusive studies of black and white discrimination and prejudice: A literature review. Psychological bulletin, 1980, 87, 546-563.

Culbertson,F. M. Modification of an emotionally held attitude through role playing. Journal of abnormal and social psychology. 1957,54,230-233.

Fiedler,F.E., M itchell,T.,& Triandis, H.C. The culture assimilator: An approach to cross-cultural training. Journal of applied psychology, 1971,55,95-102.

Foa,U.G. & Chemers, M.M. The significance of role behavior differentiation for cross-cultural interaction training. International journal of psychology,1967,2,45-58.

Gerard, H.B. School desegregation: The social science role. American psychologist, 1983, 38,869-877.

Gudykunst, W.B. & Hammer, M.R. "Basic training design: Approaches to intercultural training". In D. Landis and R.W. Brislin (Eds). Handbook of intercultural training. Vol. I: Issues in theory and design. New York: Pergmon Press, 1983. Pp. 118-154.

Gudykunst ,W.B., Hammer,M.R. & Wiseman,R.L. An analysis of an integrated approach to cross-cultural training. International journal of intercultural relations,1977,1(2),99-110.

Hope, R.A . Racial strife in the U.S. military. New York: Praeger, 1979.

Katz,J. The effects of a systematic training program on the attitudes and behaviors of White people. International journal of intercultural relations, 1977,1(1),77-89.

Landis,D .,Day,H.R.,McGrew, P.L., Thomas, J.A., & Miller, A.B. Can a black "culture assimilator" increase racial understanding? Journal of social issues, 1976,32,169-183.

Landis, D., Hope, R.O., and Day, H.R. "Training for desegregation in the military" In N. Miller and M. Brewer (Eds). Groups in contact: Psychological approaches to desegregation. New York: Academic Press, in press.

Lewin,K. Action research and minority problems. Journal of social issues, 1946,4(2),34-46.

Malpass,R.S. , & Salancik, G.R. Linear and branching formats in culture assimilator training. International journal of intercultural relations, 1977,1(4),76-87.

Mitchell, T.R.,& Foa,U.G. Diffusion of the effect of culture training on the leader in the structure of heterocultural task

groups. _Australian_journal_of_psychology_, 1969, 21, 31-43.

Randolf, G., Landis, D., & Tzeng, O.C.S. The effects of time and practice upon culture assimilator training. _International journal of intercultural relations_, 1977, 1(4), 105-119.

Riordan, C. Equal status interracial contact: A review and revision of the concept. _International journal of intercultural relations_, 1978, 2, 161-185.

Sell, D.K. Research on attitude change in U.S. students who participate in foreign study experiences: Past findings and suggestions for future research. _International journal of intercultural relations_, 1983, 7, 131-148.

Sherif, M. _Group conflict and cooperation_. London: Routledge & Kegan Paul, 1966.

Solomon, R.L. & Lessac, M.S. A control group design for experimental studies of developmental processes. _Psychological bulletin_, 1968, 70, 145-150.

Spielberger, C.D. (Ed). _Anxiety and behavior_. New York: Academic Press, 1966.

Spielberger, C.D. & Diaz-Guerrero, R. _Cross-cultural anxiety_. Washington, D.C.: Hemisphere Press, 1976.

Steinhalt, E. & Taft, R. The effect of a planned intercultural experience on the attitudes and behaviors of the participants. _International journal of intercultural relations_, 1979, 3, 187-198.

Stenning, B.W. Problems in cross-cultural contact: A literature review. _International journal of intercultural relations_, 1979, 3, 269-313.

Triandis, H.C. _The analysis of subjective culture_. New York: Wiley, 1972.

Triandis, H.C. _Interpersonal behavior_. Monterrey: Brooks/Cole. 1976a.

Triandis, H.C. _Variations in black and white perceptions of the social environment_. Urbana: University of Illinois Press, 1976b.

Triandis, H.C. Theoretical framework for evaluation of cross-cultural training effectiveness. _International journal of intercultural relations_, 1977, 1(4), 19-44.

Weeks,W.H., Pedersen, P.B. & Brislin, R.W. A manual of structured experiences for cross-cultural training. Washington,D.C.: Society for Intercultural Education, Training and Research, 1977.

Weigel,R.H., Wiser, P.L., & Cook, S.W. The impact of cooperative learning experiences on cross-ethnic relations and attitudes. Journal of social issues, 1975, 31, 219-244.

Weldon, D.E. , Carlston,D.E., Rissman, A.K., Slobodin, L. & Triandis, H.C. A laboratory test of effect of culture assimilator training. Journal of personality and social psychology, 1975, 32, 300-310.

note

1. Briefly, a culture assimilator consists of a series of scenarios depicting interpersonal interactions between members of different cultural groups. A question is asked about the motivations of one of persons in the story and alternative responses provided. The correct response is one that requires some knowledge about the cultural background of the persons in the interaction. A correct selection is followed by further explanation, positive reinforcement and going on to the next story. An incorrect selection is followed by negative reinforcement, some explanation, and a routing back to the story for another selection. Assimilators are available for a number of non-American societies as well as Black and Hispanic American groups. See Albert (1983) for a complete listing.

Reference Notes

1. Foa, U.G., Mitchell, T.R., Santhai, S., Wichiarajote, N. & Wichiarajote, W. Thai culture assimilator. Urbana, Ill.: Group Effectiveness Laboratory, University of Illinois, 1967.

2. Symonds, J., O'Brien, G., Vidmar, M. & Hornik, J. Honduras culture assimilator. Urbana, Ill.: Group Effectiveness Laboratory, University of Illinois, 1967.

3. Mitchell, T.R., Gagerman, J. & Schwartz, S. Greek culture assimilator. Urbana, Ill.: Group Effectiveness Laboratory, University of Illinois, 1967.

4. Day, H.R., Landis, D. & McGrew, P.L. Culture assimilators for training Army personnel in racial understanding. Philadelphia, Pa.: Center for Social Development, University City Science Center, 1975.

5. Landis, D., Brislin, R.W., Tzeng, O.C.S. & Thomas, J.A. Some effects of acculturative training: A Field Evaluation. Honolulu: Culture Learning Institute, East-West Center, 1983.

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